

# *Bally*<sup>®</sup> HOME LIBRARY COMPUTER



## OWNERS MANUAL

# CONGRATULATIONS

The Bally Home Library Computer is the first module of one of the most exciting new concepts in computer technology.

The first module will permit you to use your unit as an arcade game, a teaching tool or an electronic calculator. Future expansion modules will include a professional CRT terminal keyboard, dual or single tape decks and additional memory.

Each unit will be expandable to include impact printers, floppy disk storage units and a series of additional peripherals which will turn your basic unit into a complete home or business computer.

Your HLC is designed to accommodate the full expansion capabilities of the Bally/JS&A computer system — a system that will grow with your needs.

Congratulations, you have purchased the finest system available.

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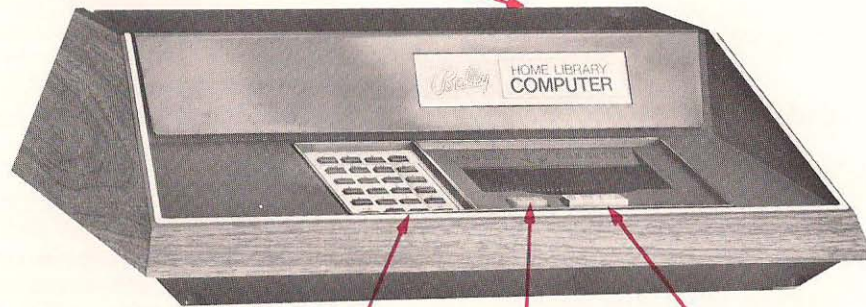
Cable Address: Midco • Telex No. 72-1596

## CAUTION

The following rules are established by the Federal Communications Commission to prevent possible interference with neighboring TV sets.

1. **Don't** connect more than one TV set to the system.
2. **Don't** connect Bally HLC wires directly to any TV antenna or cable TV connector. All connections must be made through the TV adapter switch.
3. **Don't** use additional wire between the VHF terminals and the TV adapter switch.

STORAGE COMPARTMENT



KEYPAD

RESET BUTTON

EJECT BUTTON





## Bally Exclusive Features

### Automatic TV Protection

Your HLC is designed with the TV protection circuit. If your unit is left unattended for only five minutes, the Bally HLC will automatically blank the screen and thus prevent any damage to your television. When you return, all you need to do is press *any* key and get your screen operational again.

### Pause Feature

If you wish to pause in the middle of a program, press the clear  key to blank the screen. When you return, press clear  again to resume, your game will appear on the screen at the exact point at which you turned it off.

### Remote Game Selection

The Bally Home Library Computer is the only programmable video game with optional remote game selection. All of the keypad entries required to select and initiate a game may be made using a hand control from your easy chair.

The procedure for remote game selection is easy and only three steps are involved. Let's play CHECKMATE as an example.

Turn the power switch on. A listing of the games by number should appear on your TV screen. (If it does not,

press the RESET button, or see section on system connections.)

Remote game selection works **ONLY** with the #1 Player control.

- 1) Press the trigger. This tells the HLC that you wish to use remote game selection. A red number will appear in the lower-left corner of the TV screen.
- 2) Twist the knob on the hand control to change the red number. Adjust the knob until the number of entries that you want is shown. For CHECKMATE this number would be 2.
- 3) Press the trigger again. This time it will register your choice.

The unit will now ask "ENTER # OF GAMES". Press the trigger once for remote game selection. Adjust the knob to indicate the number of games you wish. Register your choice by pressing the trigger.

Now follow the same 1,2,3 sequence to enter the number of players.

When a game is over, you can start another game by pulling the trigger to get the selection. Then pull trigger, adjust knob and pull trigger again to enter your choice.

Your Bally HLC is equipped with a 5 function, 10 memory calculator. No other unit incorporates this feature. This calculator is quite unlike any you have seen before because of its capability of displaying a printed video tape which reveals all your previous calculations, up to 92 line entries. (See page 10 for operating instructions.)

# Connecting *Bally* Home Library Computer to your TV set

Attach your Bally HLC to the 300 ohm antenna terminals on your television.

Included with your unit is a TV adapter switch. This switch allows you to select either Bally Arcade or regular TV viewing. Simply move the slide switch to the mode desired. "Game" position for Bally HLC or "TV" position for television.

## I. Adapter Switch Connections

A. Connection to sets having 300 ohm antenna system with screw terminals. See figure 2.

1. Locate the VHF antenna terminals on the back of your television set. Remove the existing wires connected to the VHF terminals. Attach these wires to the terminals marked "Connect to Antenna" at the base of the adapter switch.
2. Connect the short length of antenna wires coming from the side of the adapter switch to the VHF terminals of your TV set.

B. Connection to sets having 75 ohm antenna system employing Round Coaxial Cable and Cylindrical Connector. See figure 3.

NOTE: In this installation it will be necessary for you to purchase 75 ohm to 300 ohm transformer, available from your local dealer or any television service organization.

1. Remove Coaxial Cable Connector from its socket on the back of the TV set, then connect it to the socket of the transformer. Avoid bending of center wire in cable.

2. Connect the 300 ohm flat twin-lead wire coming from the end of the transformer to the terminals marked "Connect to Antenna" on the adapter switch.
3. Connect the short length of 300 ohm antenna wire coming from the side of the adapter switch to the VHF terminals of your TV. (Additional TV adapter switches may be purchased from JS&A so you may install one on each television set in your home.)

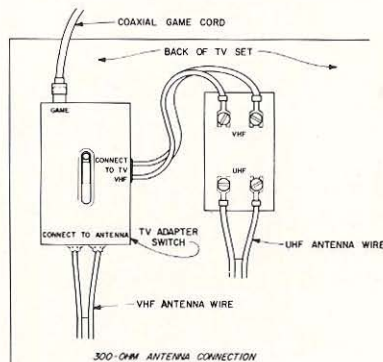


Figure 2

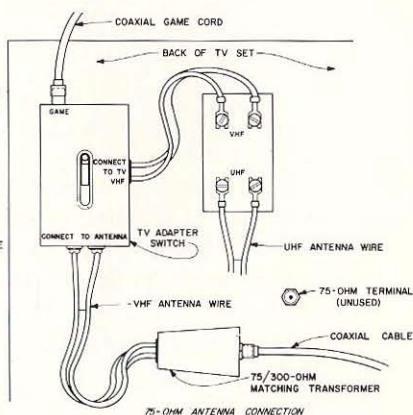


Figure 3



- II. Carefully unroll the Coaxial Cable from the HLC console and plug it into the TV adapter switch receptacle marked "Game".
- III. Plug the power supply cord into a 120 volt AC outlet.
- IV. Plug each hand control unit into its appropriate plug on rear of console. See figure 4.
- V. Move console On/Off switch (on back of console) to "On" position. See figure 4.
- VI. Move slide switch on TV adapter to "Game" position.
- VII. Turn on TV set and set Channel Selector to Channel 3 position.

The selection of your entertainment system should now appear on the TV screen. (If not, press the reset button on the keypad.)

You now have a choice of Gunfight, or Checkmate arcade Games, a 5 function, 10 memory printing calculator or Scribbling, an exciting art form game. Press the appropriate numbered button on the keypad to start the game of your choice.

If the selection doesn't appear, check the following:  
Is the on/off switch on the back of the console in the "on" position?

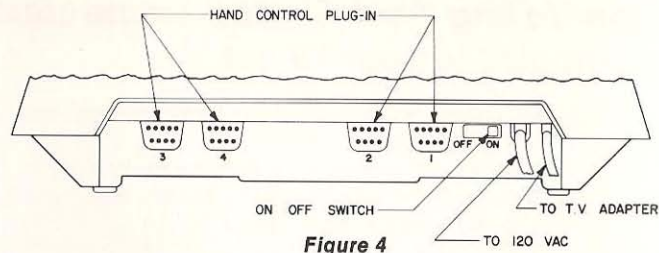
Is the switch on the TV adapter in the "game" position?

Is the coaxial cable securely inserted into the adapter switch?

Is the power supply cord securely inserted into a 120 volt outlet?

Is the flat twin-lead wire properly hooked up to the back of the TV set?

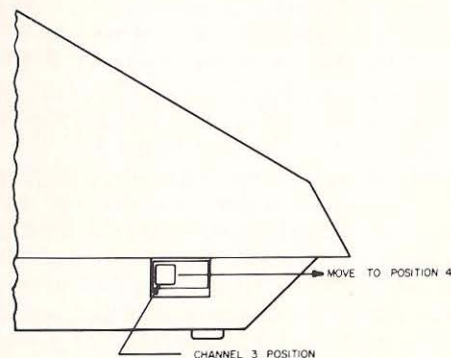
Is your channel selector set on Channel 3?



**Figure 4**

Your Bally HLC is set to operate on Channel 3. If there is interference from a Channel 3 TV station in your area, you can change to Channel 4 by moving the slider switch of the RF modulator to position 4 and setting your channel selector to Channel 4. This switch is located on the left side of your console. See figure 5.

In order to enhance the quality of your picture, you should use the fine tuning controls of your television set.



**Figure 5**

# How To Use Your *Bally* Home Library Computer

## Hand Controls

Each hand control is numbered on the top of its knob. Remember to insert each control into its corresponding numbered location on the back of your unit (see figure 4.)

The detailed action controlled by the hand controllers varies with the game being played. Each pistol grip hand control has several functions which determine the action seen on your screen.

Squeezing the trigger activates a switch for shooting as in Gunfight or placing a trace on the screen as in Scribbling.

The knob on top of the control can be moved in 8 directions, forward, backward, left, right, and at 45 degree angles.

These motions determine the movement of the image on your screen.

Rotating this knob positions the cowboys hand during Gunfight, etc. Review hand control actions for each individual game. Notice that the knob moves easily. **Under no circumstances should you force that knob.**



Figure 6

TOP VIEW

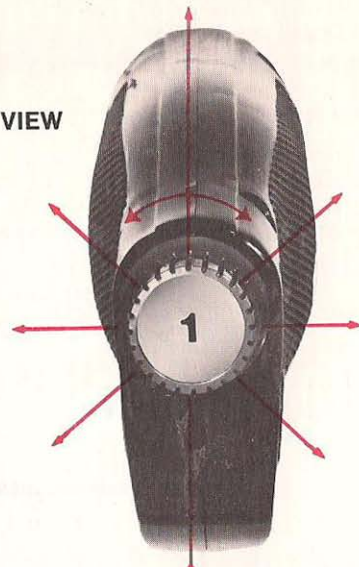


Figure 7

HAND HELD

## Gunfight (2 player only)

"Draw, you tinhorn!" You've got to be the fastest and the surest shot in the room to win at Gunfight.

### How to get Gunfight on your screen:

Press 1 on your keypad to get Gunfight on your screen. The Bally HLC will ask you to "ENTER THE MAXIMUM SCORE." (Press  and the first player to shoot down the other five times, will win the game.) You must enter  after you pick your score.

Enter  (number of games)

Enter  (game start)

This is the picture of the characters that will appear during the game.

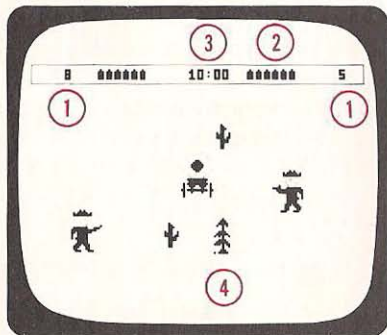


Figure 8

1. Each player's score.
2. The shots remaining.
3. Ten second timer starts after either player runs out of ammo.
4. Each "scoring set" will have different objects appear on screen between the gunfighters. Your gunfighter will be able to hide behind cacti, trees and even a covered wagon.

### Hand Controls

Gunfight is a two-player game and uses the hand controls numbered '1' and '2'.

Joy Stick. . . . Walks your gun fighter around the screen.

Knob. . . . .Raises and lowers his arm.

Trigger. . . . .Shoots.



## Checkmate (0 to 4 players)

Challenge your friends or family to this fascinating game of wits. See if you can cause your opponents to crash into your trail, their trail, or the sides of your TV screen. . .before they nail you!

### How to get Checkmate on your screen:

Press **[2]** on your keypad to get Checkmate. The Bally HLC will ask you to "ENTER THE NUMBER OF GAMES." You must enter **[=]** after you enter the number of games.

The Bally Arcade will then ask you to "ENTER THE NUMBER OF PLAYERS."

Press 0. . .For no players and the computer plays against itself.

Press 1. . .Four characters appear and it is man against machine. You control player #1 and the Bally HLC controls the remaining three.

Press 2, 3, or 4. . .The corresponding number of characters will appear and it is every man for himself.

Example:

Enter **[8]** (number of games)

Enter **[=]** (game start)

Enter **[1]** (for one player)

After you have decided how many people will play Checkmate, the following picture will appear on the screen (0, 1 or 4 player):

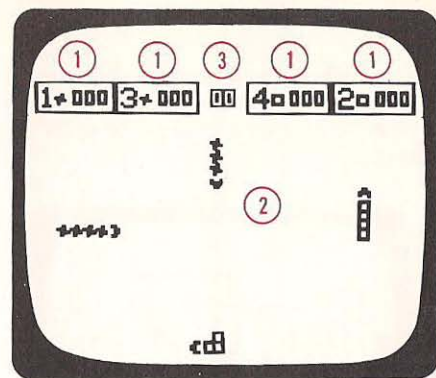


Figure 9

1. Each player's symbol and score.
2. Each player's symbol on the playing field.
3. The number of games remaining.

### Scoring:

Every time you outlast one of your opponents, you receive one point. For example, in a game with four players, the first player to be eliminated scores zero, and the remaining three score one point each. The *next* player eliminated also scores zero, and the remaining two players each score another point. After all other players have been eliminated, the remaining player will have scored three points. . .and the game is over.

### Hand Controls

Joy Stick. . .Moves your symbol horizontally, vertically and diagonally.

Knob. . . no function.

Trigger. . . no function.

# Scribbling

Scribbling is a fascinating creative game. By manipulating the various controls you can create a multi-color pattern on your TV screen and draw or write almost anything you choose.

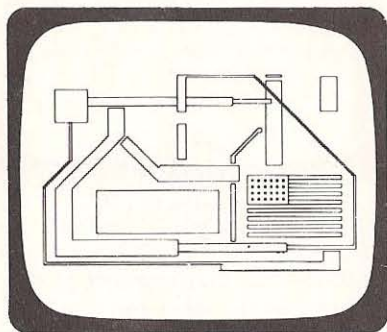


Figure 10

## How to start:

Press **[4]** on your keypad to get Scribbling on your screen.

Now that you've chosen Scribbling, the question "#OF PLAYERS?" will appear. You can choose from zero to four by pressing the appropriate number key on the keypad.

Before starting to scribble, place the plastic overlay for the keypad into position. This overlay outlines the functions controlled by the keys during Scribbling. See Figure II.

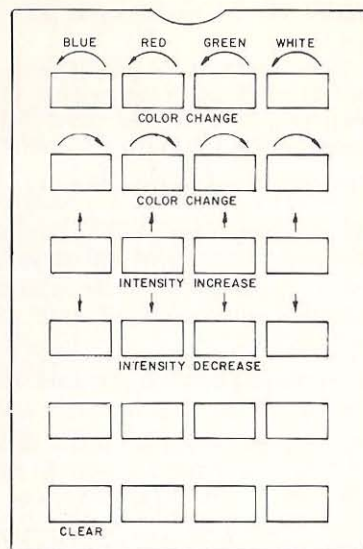


Figure 11

If you select zero players, the HLC console will automatically trace an ever changing pattern on your TV screen and continues until you press the reset key or the clear key. (The automatic television protective circuit will not function while in zero player mode.)

When 1 to 4 player action is chosen you should see one to four colored squares on your screen. Movement of these squares is accomplished by movement of the Joy Stick in any of its eight directions. Squeezing and releasing the trigger of the control will place a colored square anywhere you desire. If you wish to draw a line, squeeze the trigger and hold. Move the Joy Stick in the direction you wish to draw.

Rotate the top control knob to change the size and color of your square. In the counter-clockwise position of this knob you will see a large blue square. As you begin to rotate in a clockwise direction the color will change to red, then green and finally white. Continue to rotate and the size of the square will decrease and again you will pass through the four basic colors.

One complete rotation from left to right produces 4 square sizes — large to small — and the 4 basic colors which in effect puts a 16 position switch at your fingertips.

Alternately squeezing and releasing the trigger while in motion produces a dotted line. The combinations you can produce are limitless. . .but we're not through yet! We must go to the keypad controls. Looking first at the color wheel, as illustrated here, you will note that it displays a total of 32 colors. All of these colors are attainable by using the proper button on the keypad. For example, if we wish to change from green in our display to orange we press the clockwise rotation key in the third row (Green) and hold, until green becomes orange and release. The color wheel is made up of the 8 colors in each segment, shown between the 4 basic colors. The color clockwise and counter clockwise keys appear in the first two rows (top to bottom) on your keypad, the next two rows of keys control the intensity level of a color. Having 8 intensity levels for each color we now reach the total of 256 available colors! When changing to any color or intensity of color, the key must be held down until you reach the desired result.

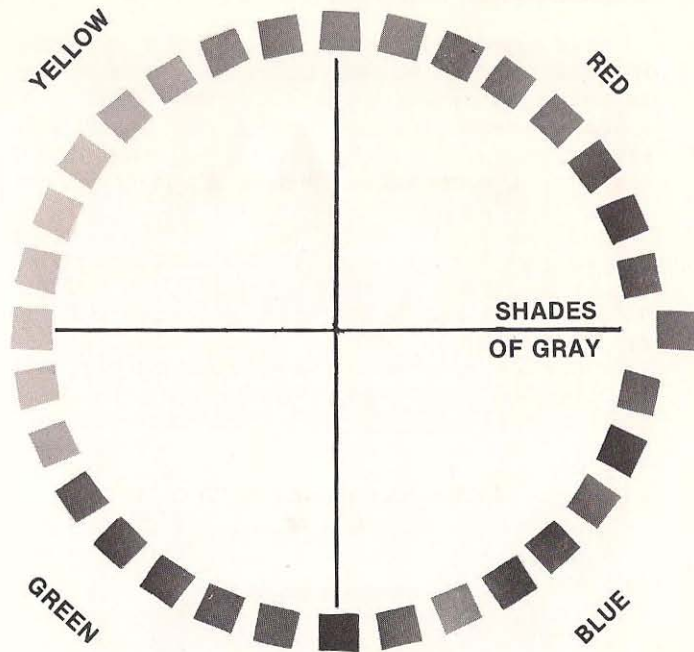


Figure 12

When playing Scribbling you will not need the pause feature. However, the automatic television protective feature operates normally.

*Press clear key to reset all colors and intensities to initial values.*



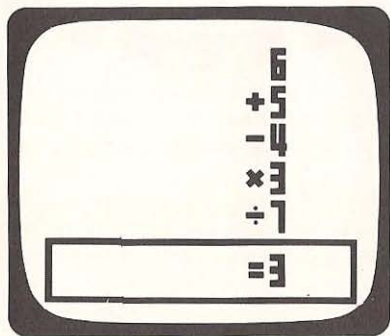
## Calculator Instructions

The programmable microprocessor unit in your Bally HLC contains a 5-function, 10-memory printing keypad calculator that scrolls on your TV screen.

The convenient algebraic entry system allows problems to be entered in the same order they are written. If we want to calculate  $3 + 4 - 5$  we need only to press  $\boxed{3} \boxed{+} \boxed{4} \boxed{-} \boxed{5} \boxed{=}$ .

After choosing the calculator by pressing  $\boxed{3}$  on the keypad, your TV screen should show a white background and a long orange horizontal bar near the bottom of your TV screen. This represents the viewing window of your calculator.

The calculator is easy to operate and can add, subtract, multiply and divide. Using these four basic functions, we'll see exactly what takes place and how it looks on your TV screen. Let us perform the operation:  $6 + 5 - 4 \times 3 \div 7 = ?$ , by pressing, in order, the number and function keys  $\boxed{6} \boxed{+} \boxed{5} \boxed{-} \boxed{4} \boxed{\times} \boxed{3} \boxed{\div} \boxed{7} \boxed{=}$ . Looking at your TV screen, you'll see the answer — the sum total of your calculation, appears as “=3” in the orange window.



The calculations appearing directly above this window are the beginning of a printed video tape revealing each entry and function performed. This unique feature of the calculator will continue to record and store your calculations up to a limit of 92 lines, allowing for lengthy and complex calculations. In addition, *you may recall to your TV screen*, any *previous* calculation by simply pressing and holding the scroll backward key  $\boxed{\downarrow}$  until your calculation appears! At this point, it would be best to use the scroll forward key  $\boxed{\uparrow}$ , and return to the end of the video tape prior to any further calculations. Should you start new calculations while in the middle of the video tape, they will be added in their proper location at the end. Therefore, you will not see them as before. Your only visible indication will be the line entries as they appear in the orange window. To clarify, video tape must be scrolled forward until end of tape is reached. Should your calculations exceed the 92 line limit, data at beginning of video tape will be omitted as new data is added, thus maintaining a tape of 92 lines.

## Calculator Functions

- |                    |   |
|--------------------|---|
| (C) Clear Key      | - Removes all previous calculations including memory storage.   |
| (CE) Clear Entry   | - Removes only the last entry from display.   |
| (CH) Change Sign   | - The "CH" key changes the sign of the displayed number. Negative numbers will appear in red.   |
| (MS) Memory Store  | - Adds displayed number to memory; 10 individual entries to memory storage can be made. Each time the MS key is used it should be followed by pressing the appropriate number key (1,2,3, etc.), to establish numerical sequence within storage register. |
| (MR) Memory Recall | - Recalls number in memory to display. Must be followed by appropriate number key to secure correct memory from storage.  |
| (↑) Scroll Up      | - Moves video tape forward.   |
| (↓) Scroll Down    | - Moves video tape backward.  |
| (.) Decimal        | - Enters a decimal point.   |
| (%)                | - Calculates a percentage of the previous entry.  |

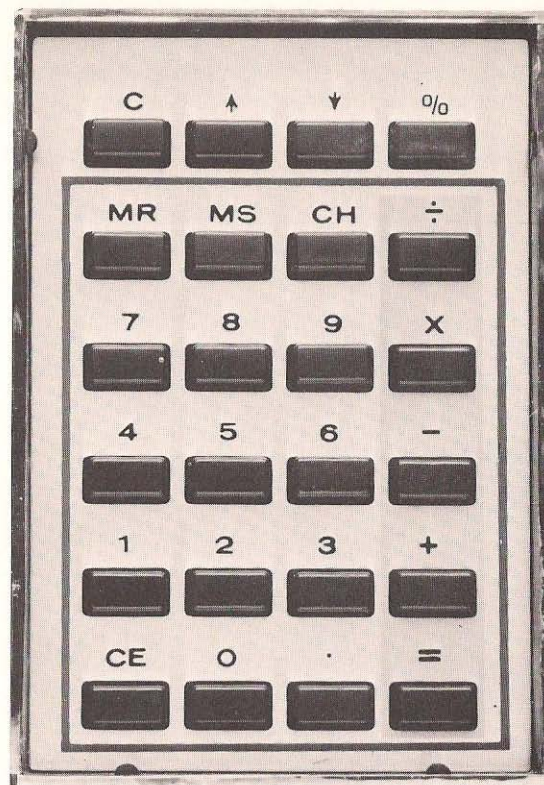


Figure 13

# *Bally* Videocades Mean There's Always More To Come!

## Display

Calculator will display up to 10 digits to the left of the decimal point on your screen. It will also store up to 10 digits to the right of the decimal, which are not shown.

Set the decimal values, subtract the 10 digit number shown in display from itself.

Enter:	<input type="text" value="1"/> <input type="text" value="."/> <input type="text" value="3"/> <input type="text" value="0"/> <input type="text" value="4"/>	Display 1.304
Enter:	<input type="text" value="+"/> <input type="text" value="1"/> <input type="text" value=","/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value=","/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value=","/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/>	
Enter:	<input type="text" value="="/>	Display 1,000,000,001
Enter:	<input type="text" value="-"/> <input type="text" value="1"/> <input type="text" value=","/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value=","/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value=","/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="1"/>	
Enter:	<input type="text" value="="/>	Display .304

## Percentage

Enter:	<input type="text" value="5"/> <input type="text" value="6"/> <input type="text" value="0"/>
Enter:	<input type="text" value="+"/>
Enter:	<input type="text" value="4"/>
Enter:	<input type="text" value="%"/>

Window shows 22.4 which is 4% of 560.

Enter:	<input type="text" value="="/>
--------	--------------------------------

Window shows 582.4 which is 560 plus 4%.

Your Bally HLC not only has four games built in, it has virtually hundreds of game possibilities! With optional Videocade cassettes, you will have a veritable library of games and educational tools. Videocade cassettes are now available in a variety of programs that include an Educational Series, a Sports Series, an Action/Skill Series and a Strategy Series. And more are on the way!

Just insert the Videocade. The selection will appear and you can make your choice.

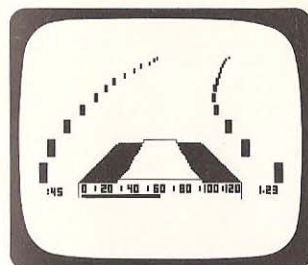
To change your Videocade, press the eject button.

So do enjoy your Bally Home Library Computer. . . you now have a whole new dimension in home TV entertainment at your fingertips.



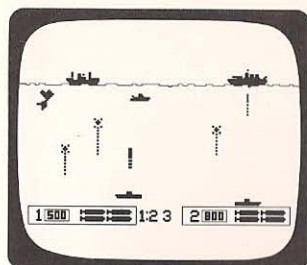


# VIDEOCADE 2001



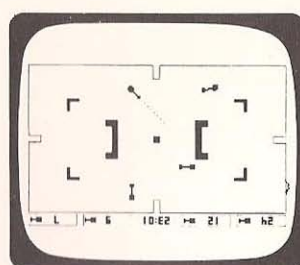
280 ZZZAP T.M.  
DODGEM T.M.

# VIDEOCADE 2002



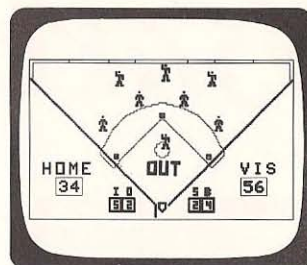
SEAWOLF T.M.  
BOMBARDIER T.M.

# VIDEOCADE 2003



PANZER ATTACK T.M.  
RED BARON T.M.

# VIDEOCADE 3001



TORNADO BASEBALL T.M.  
TENNIS HOCKEY AND  
HANDBALL

# VIDEOCADE 4001



SPEED MATH T.M.  
BINGO MATH T.M.

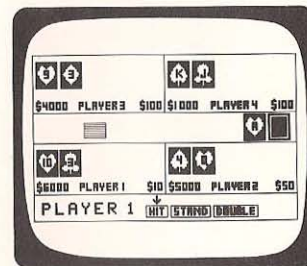
## The Home Library Computer

The exclusive computer video system that grows as you grow.

## By Bally

The people who make the games people play.

# VIDEOCADE 5002



BLACKJACK POKER AND  
ACEY-DEUCEY

**Bally®**

**CONSUMER PRODUCTS DIVISION**